Document made available under the Patent Cooperation Treaty (PCT)

International application number: PCT/US05/010362

International filing date: 29 March 2005 (29.03.2005)

Document type: Certified copy of priority document

Document details: Country/Office: US Number: 60/557,301

Filing date: 29 March 2004 (29.03.2004)

Date of receipt at the International Bureau: 02 May 2005 (02.05.2005)

Remark: Priority document submitted or transmitted to the International Bureau in

compliance with Rule 17.1(a) or (b)





THE INTERED STATES OF ANTER OF

TO ALL TO WIGH THISE, PRESENTS, SHAME COME:

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

April 20, 2005

THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A FILING DATE.

> APPLICATION NUMBER: 60/557,301 FILING DATE: March 29, 2004

RELATED PCT APPLICATION NUMBER: PCT/US05/10362

Certified by

Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office

PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c).

Express Wall Label No. EL 969760763 03							i.
INVENTOR(S)							
Given Name (first and middle [if any])	Family Name of	or Sumame	Residence (City and either State or Foreign Country				
Jean-Pierre	Giraud		7 rue de la Nativite				
Jean-Helle	Ollada		75012 Paris FRANCE				
Additional inventors are being named on the separately numbered sheets attached hereto							
TITLE OF THE INVENTION (280 characters max)							
RE-SEALING MECHANISM FOR A SOLID DOSAGE DISPENSER							
Direct all correspondence to: CORRESPONDENCE ADDRESS							_
X Customer Number 32,361 —			Place Customer Number Bar Code Label here			1	
OR Type Customer Number here							
Firm or Individual Name							
Address							
Address							
City		State		ZIP			
Country	0050 1001101	Telephone		Fax			
ENCLOSED APPLICATION PARTS (check all that apply) X Specification Number of Pages 3 CCV(x) Number							
CD(s), Number							
Other (specify)							i 1
Application Data Sheet. See 37 CFR 1.76							
METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT Applicant claims small entity status. See 37 CFR 1.27 FILING FEE							
Applicant claims small entity status. See 37 CFR 1.27. A check or money order is enclosed to cover the filing fees AMOUNT (\$)							- 1
The Commissioner is hereby authorized to charge filing							
fees or credit any overpayment to Deposit Account Number: 50-1561 Payment by credit card. Form PTO-2038 is attached.							
The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.							
No							
Yes, the name of the U.S. Government agency and the Government contract number are:							
Respectfully submitted Date 03/29 / 03							
SIGNATURE POLICY & Policy			REGISTRATION NO. (if appropriate) Docket Number: 62357			32.938	
TYPED or PRINTED NAME Barry J. Schindler						62357.TBA	
ELEPHONE (212) 801-2244							`

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

This collection of information is required by 37 CFR, 1.5.1 The Information is used by the public to file (and by the PTO to process) a provisional application. Confidentiately is governed by 35 U.S. C. 12 and 37 CFR, 1.4.1 This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the complete provisional application to the PTO. Time will vary depending upon in-individual cases. Any commission in the amount of time your require to complete the form and/or suggestions for reducing his burden, 1.5.1 to 0.1 to 0.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:

Jean-Pierre Giraud

APPLICATION No.: FILING DATE:

To Be Assigned March 29, 2004 62357.TBA

ATTORNEY DOCKET: TITLE:

RE-SEALING MECHANISM FOR A SOLID DOSAGE DISPENSER

EXPRESS MAIL CERTIFICATE

Express Mail Label No EL 969760765 US

→EL969760765US

Date of Deposit: March 29, 2004

I hereby certify that the following attached paper(s) and/or fee

- 1) Provisional Patent Application, comprising of 1 title page, 3 pages of specs and 4 figures;
- 2) Fee Transmittal:
- 3) Provisional Application Cover Sheet; and
- 4) A self-addressed stamped postcard, return of which is requested to acknowledge receipt of the enclosed documents.

are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. Section 1.10 on the date indicated above and is addressed to the "Mail Stop Provisional Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450".

> Respectfully submitted. GREENBERG TRAURIG LLP

Dated: March 29, 2004

CORRESPONDENCE

GREENBERG TRAURIG LLP

Tele: (212) 801-2100

Fax: (212) 688-2449

RE-SEALING MECHANISM FOR A SOLID DOSAGE DISPENSER

Inventor: Jean-Pierre Giraud 7 rue de la Nativite

75012 Paris FRANCE

Docket: 62357.TBA

PROVISIONAL

PRESENT INVENTION

The present invention relates to a mechanism that, in one embodiment, is used in a solid dosage dispenser that presents a single dosage form during shelf life and after each index cycle. The invention provides a moisture tight environment during shelf life and use life.

Solid dosage forms are typically used to deliver pharmaceutical, medicated confectionary, and confectionary products. These dosage forms include but are not limited to: compressed tablets, coated tablets, capsules, caplets, liquid gels, liquid encapsulated beads, et al. One example of a solid dosage dispenser is an active dispenser where a user pushes a button or lever and one dosage form exits the container at a time.

In one embodiment, the dispenser consists of multiple pieces. One piece of the dispenser is an element that creates a moisture tight seal at the place where the dosage form exits the dispenser. Another aspect is to protect the seal area from being damaged due to accidental contact with foreign matter.

The present invention comprises a sealing "door" or "plug" to seal and protect the dispensing opening/hole. In one embodiment, the dispensing hole may be an actual hole or a slit within an elastomeric material. For example, the plug can be any shape (e.g. circular, oval, rectangular, square,...). In another example, the "door" or "plug" can include a plugging principle (a "male" to plug the "female") whereby through interference, the opening is sealed and resealed upon opening and closing. In yet another example, the hole can be plugged through interference with the plug by using the same material or can rely upon the use of dissimilar materials (e.g. PP and HDPE, PP and TPE, or others).

In yet another embodiment, the "door" or "plug" applies pressure to an elastomeric gasket on the container that forms and protects the dispensing hole.

In a further embodiment, the present invention uses a foil seal over the top of the "hole". The foil material can be affixed to the material (e.g. PP or PE) that surrounds the gasket material and not onto the gasket material itself.

In another embodiment, the door can be created through a living hinge with the container or can be attached afterwards by using common locking mechanisms. In another example, the door can be engineered to require at least two movements to release it and could provide a mechanism for providing a Child Resistant package. In yet another example, the door can be designed to catch and/or retain the dosage form once it has been dispenser from the container.

In another embodiment, the present invention relates to moisture-tight and resealable mechanism. The term "resealable" means that the container can be opened/reopened and closed/reclosed a numerous amount of times (e.g. more than 5 times) and still retain its moisture-tight properties. The term "moisture tight" means the moisture ingress of the container (after three days) was less than about 1000 micrograms of water, in another embodiment, about 750 micrograms of water, in a further embodiment, about 250 micrograms of water determined by the following test method: (a) place one gram plus or minus 0.25 grams of molecular sieve in the container and record the weight; (b) the container is closed by applying, in a singular motion, a frontal downward pressure upon the thumb tab until the rim portion, adjacent to the thumb tab, contacts the inside flat part of the cap also adjacent to the thumb tab; (c) place the closed container in an environmental chamber at conditions of 80% relative humidity and 72F; (c) after one day, weigh the container containing the molecular sieve; (d) after four days, weigh the container containing the molecular sieve; and (e) subtract the first day sample from the fourth day sample to calculate the moisture ingress of the container in units of micrograms of water.

Figure 1 through 4 illustrates embodiments of the present invention. Figure 1 shows a dispenser with an enlarged view one embodiment of the sealing mechanism. In the enlarged view, the foil seal is also shown. The door applies pressure to the elastomeric seal of the container when closed to form a moisture-tight seal. Figure 2 shows another embodiment of the sealing mechanism in both the open and closed positions. In the open position, the "door" (e.g. "plug") on the lid allows the seal to be opened. In the closed position, the plug contacts the elastomer on the container and thus, seals the container. In one example, the container comprises a portion, which contacts the plug, composed of an elastomer or like materials. Figure 3 shows yet another embodiment of the sealing mechanism in both the open and closed positions. In the open position, the foil seal is applied to the container (e.g. welded) and the lid does not contact the container. In the closed position, the plug of the lid is applied over the foil seal and the plug creates an interference fit with the container. In one example, the plug and the container are composed of the same material (e.g. PP or PE (Hd/Ld)). Figure 4 shows a further embodiment of the sealing mechanism in both the open and closed positions whereby the plug again creates an interference fit with the container. In one example, the plug and the container are composed of the same material (e.g. PP or PE (Hd/Ld)).

In another embodiment, the sealing mechanism of the present invention is used in a single dispense solid dosage dispenser. In a further embodiment, the sealing mechanism of the present

invention creates a moisture tight seal that protects the product in the dispenser during its shelf life and use life. In yet another embodiment, the sealing mechanism of the present invention creates a moisture tight seal by the interference of a plug in an opening with the same materials used in the container and lid. In another embodiment, the sealing mechanism of the present invention creates a moisture tight seal by the interference of a plug in an opening with the plug being composed of a different materials then that used in the container and lid. In another embodiment, the sealing mechanism of the present invention uses, in addition to the plug, a foil seal over the opening. In another embodiment, the sealing mechanism of the present invention creates a moisture tight seal by compressing an elastomer in conjunction with the plug. In another embodiment, the sealing mechanism of the present invention comprises a "door" or "plug' created as one piece so as to be a living hinge or assembled to a dispenser. In another embodiment, the sealing mechanism of the present invention comprises a plug having two distinct movements to release in order to create a Child Resistant package. In another embodiment, the sealing mechanism of the present invention comprises a door or plug that catches the dosage so that it does not need to be touched by the user.

Whereas particular embodiments of the present invention have been described above as examples, it will be appreciated that variations of the details may be made without departing from the scope of the invention. One skilled in the art will appreciate that the present invention can be practiced by other than the disclosed embodiments, all of which are presented in this description for purposes of illustration and not of limitation. It is noted that equivalents of the particular embodiments discussed in this description may practice the invention as well. Therefore, reference should be made to the appended claims rather than the foregoing discussion of examples when assessing the scope of the invention in which exclusive rights are claimed.

This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

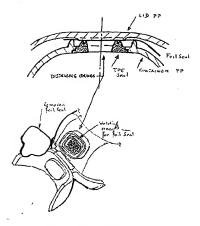
Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

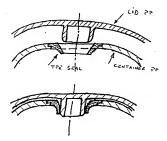
- BLACK BORDERS
- . TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

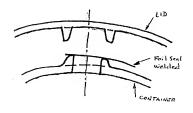
As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.

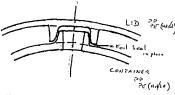


- FOIL SEAL CONTRING OPENING
- DOOR APPLIES PRESSURE TO ELASTONEEL GASKET WHEN CLOSED

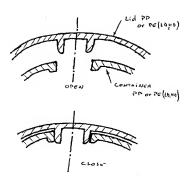


PLUG OU LID SEALUNG ELASTONER AT





FOIL SEAL OUR DISPEDING OFFINES
PLUC CREATES INTERFEDANCE WITH SOMEONE
MATERIALS



PLUS CREATES INTERFERANCE WITH SIMILAR MATERIALS